

SEQUENCE LISTING

<110> Bristol-Myers Suibb Company

<120> Novel Drosophila Tumor Necrosis Factor Class Molecule ("DmTNF") and Variants Thereof

<130> D0016.np

<150> 60/190,816

<151> 2000-03-21

<160> 65

<170> PatentIn version 3.0

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<222> (652)..(1878)

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Arg Ser Ile Ala Asp Val Arg Asn Glu Glu Gln Asn Ile Gln Gly Asn	
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His Leu Val Val Arg Lys Ala Arg Ser Glu Asp Ser Arg Pro Ala Ala	
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His Phe His Leu Ser Ser Arg Arg Arg His Gln Glu Ser Met Gly Tyr	
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35 40 45

Leu Val Val Ala Ile Leu Ala Leu Thr Ile Trp Gln Thr Thr Arg Val
50 55 60

Ser His Leu Asp Lys Glu Leu Lys Ser Leu Lys Arg Val Val Asp Asn
65 70 75 80

Leu Gln Gln Arg Leu Gly Ile Asn Tyr Leu Asp Glu Phe Asp Glu Phe
85 90 95

Gln Lys Glu Tyr Glu Asn Ala Leu Ile Asp Tyr Pro Lys Lys Val Asp
100 105 110

Gly Leu Thr Asp Glu Glu Asp Asp Asp Asp Gly Asp Gly Leu Asp Ser
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Ile Ala Asp Asp Glu Asp Asp Asp Val Ser Tyr Ser Ser Val Asp Asp
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Val Gly Ala Asp Tyr Glu Asp Tyr Thr Asp Met Leu Asn Lys Leu Asn
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Glu Gly Glu Thr Asp Ser Ala Ser Ser Ala Ser Asn Asp Asp Asn Val
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Phe Asp Asp Phe Thr Ser Ser Asp Ala Leu Lys Lys Lys Gln Glu Arg
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Gly Asn His Thr Glu Leu Gln Glu Lys Ser Ser Asn Glu Ala Ala Ser
 225 230 235 240

Lys Glu Ser Pro Ala Ala Leu His Leu Arg Arg Arg Met His Ser Arg
 245 250 255

His Arg His Leu Val Val Arg Lys Ala Arg Ser Glu Asp Ser Arg Pro
 260 265 270

Ala Ala His Phe His Leu Ser Ser Arg Arg Arg His Gln Glu Ser Met
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Gly Tyr His Gly Asp Met Tyr Ile Glu Asn Asp Arg Glu Arg Cys Ser
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Tyr Gln Gly His Phe Gln Thr Arg Asp Gly Val Leu Thr Val Thr Asn
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Ala Gly Leu Tyr Tyr Val Tyr Ala Gln Ile Trp Gly Tyr Asn Ser His
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Asp Gln Asn Gly Phe Ile Val Phe Gln Gly Asp Thr Pro Phe Leu Gln
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Cys Leu Asn Thr Val Pro Thr Asn Met Pro His Lys Val His Thr Cys
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His Thr Ser Gly Leu Ile His Leu Glu Arg Asn Glu Arg Ile His Leu
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cgc acc cgc cag ctg atc ccc ctg gtt ttg ggg ttc atc ggt ctg ggg	144
Arg Thr Arg Gln Leu Ile Pro Leu Val Leu Gly Phe Ile Gly Leu Gly	
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ctg gtc gtt gcc att ctc gca cta acg atc tgg cag aca acg cgt gta	192
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Ser His Leu Asp Lys Glu Leu Lys Ser Leu Lys Arg Val Val Asp Asn	
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Leu Gln Gln Arg Leu Gly Ile Asn Tyr Leu Asp Glu Phe Asp Glu Phe	
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Gln Lys Glu Tyr Glu Asn Ala Leu Ile Asp Tyr Pro Lys Lys Val Asp	
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ggc ctc acg gat gag gag gac gac gac gat ggc gat ggt ctg gat tcc	384
Gly Leu Thr Asp Glu Glu Asp Asp Asp Gly Asp Gly Leu Asp Ser	
115 120 125	
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Ile Ala Asp Asp Glu Asp Asp Asp Val Ser Tyr Ser Ser Val Asp Asp	
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Glu Gly Glu Thr Asp Ser Ala Ser Ser Ala Ser Asn Asp Asp Asn Val	
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Phe Asp Asp Phe Thr Ser Tyr Asn Ala His Lys Lys Lys Gln Glu Arg	
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Gln Lys Glu Tyr Glu Asn Ala Leu Ile Asp Tyr Pro Lys Lys Val Asp	100	105	110
Gly Leu Thr Asp Glu Glu Asp Asp Asp Gly Asp Gly Leu Asp Ser	115	120	125
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Glu Gly Glu Thr Asp Ser Ala Ser Ser Ala Ser Asn Asp Asp Asn Val	180	185	190
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Lys Ser Arg Ser Ile Ala Asp Val Arg Asn Glu Glu Gln Asn Ile Gln	210	215	220
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Glu Ser Leu Leu Ser Ala Arg Ser Glu Asp Ser Arg Pro Ala Ala His
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Phe His Leu Ser Ser Arg Arg Arg His Gln Gly Ser Met Gly Tyr His
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Gly Asp Met Tyr Ile Gly Asn Asp Asn Glu Arg Asn Ser Tyr Gln Gly
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His Phe Gln Thr Arg Asp Gly Val Leu Thr Val Thr Asn Thr Gly Leu
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Tyr Tyr Val Tyr Ala Gln Ile Cys Tyr Asn Asn Ser His Asp Gln Asn
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Thr Val Pro Thr Asn Met Pro His Lys Val His Thr Cys His Thr Ser
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Gly Leu Ile His Leu Glu Arg Asn Glu Arg Ile His Leu Lys Asp Ile
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Lys Ser Leu Lys Arg Val Val Asp Asn Leu Gln Gln Arg Leu Gly Ile						
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Asn Tyr Leu Asp Glu Phe Asp Glu Phe Gln Lys Glu Tyr Glu Asn Ala						
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Leu Ile Asp Tyr Pro Lys Lys Val Asp Gly Leu Thr Asp Glu Glu Asp						
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His Arg His Leu Leu Val Arg Lys Ala Arg Ser Glu Asp Ser Arg Pro
260 265 270

Ala Ala His Phe His Leu Ser Ser Arg Arg Arg His Gln Gly Ser Met
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Gly Tyr His Gly Asp Met Tyr Ile Gly Asn Asp Asn Glu Arg Asn Ser
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Tyr Gln Gly His Phe Gln Thr Arg Asp Gly Val Leu Thr Val Thr Asn
305 310 315 320

Thr Gly Leu Tyr Tyr Val Tyr Ala Gln Ile Cys Tyr Asn Asn Ser His
325 330 335

Asp Gln Asn Gly Phe Ile Val Phe Gln Gly Asp Thr Pro Phe Leu Gln

340

345

350

Cys Leu Asn Thr Val Pro Thr Asn Met Pro His Lys Val His Thr Cys
 355 360 365

His Thr Ser Gly Leu Ile His Leu Glu Arg Asn Glu Arg Ile His Leu
 370 375 380

Lys Asp Ile His Asn Asp Arg Asn Ala Val Leu Arg Glu Gly Asn Asn
 385 390 395 400

Arg Ser Tyr Phe Gly Ile Phe Lys Val
 405

<210> 7

<211> 317

<212> PRT

<213> Drosophila melanogaster

<400> 7

Met Arg Arg Ala Ser Arg Asp Tyr Thr Lys Tyr Leu Arg Gly Ser Glu
 1 5 10 15

Glu Met Gly Gly Gly Pro Gly Ala Pro His Glu Gly Pro Leu His Ala
 20 25 30

Pro Pro Pro Pro Ala Pro His Gln Pro Pro Ala Ala Ser Arg Ser Met
 35 40 45

Phe Val Ala Leu Leu Gly Leu Gly Leu Gly Gln Val Val Cys Ser Val
 50 55 60

Ala Leu Phe Phe Tyr Phe Arg Ala Gln Met Asp Pro Asn Arg Ile Ser
 65 70 75 80

Glu Asp Gly Thr His Cys Ile Tyr Arg Ile Leu Arg Leu His Glu Asn
 85 90 95

Ala Asp Phe Gln Asp Thr Thr Leu Glu Ser Gln Asp Thr Lys Leu Ile
 100 105 110

Pro Asp Ser Cys Arg Arg Ile Lys Gln Ala Phe Gln Gly Ala Val Gln
 115 120 125

Lys Glu Leu Gln His Ile Val Gly Ser Gln His Ile Arg Ala Glu Lys
 130 135 140

Ala Met Val Asp Gly Ser Trp Leu Asp Leu Ala Lys Arg Ser Lys Leu
 145 150 155 160

Glu Ala Gln Pro Phe Ala His Leu Thr Ile Asn Ala Thr Asp Ile Pro

165

170

175

Ser Gly Ser His Lys Val Ser Leu Ser Ser Trp Tyr His Asp Arg Gly
180 185 190

Trp Ala Lys Ile Ser Asn Met Thr Phe Ser Asn Gly Lys Leu Ile Val
195 200 205

Asn Gln Asp Gly Phe Tyr Tyr Leu Tyr Ala Asn Ile Cys Phe Arg His
210 215 220

His Glu Thr Ser Gly Asp Leu Ala Thr Glu Tyr Leu Gln Leu Met Val
225 230 235 240

Tyr Val Thr Lys Thr Ser Ile Lys Ile Pro Ser Ser His Thr Leu Met
245 250 255

Lys Gly Gly Ser Thr Lys Tyr Trp Ser Gly Asn Ser Glu Phe His Phe
260 265 270

Tyr Ser Ile Asn Val Gly Gly Phe Phe Lys Leu Arg Ser Gly Glu Glu
275 280 285

Ile Ser Ile Glu Val Ser Asn Pro Ser Leu Leu Asp Pro Asp Gln Asp
290 295 300

Ala Thr Tyr Phe Gly Ala Phe Lys Val Arg Asp Ile Asp
305 310 315

<210> 8

<211> 391

<212> PRT

<213> Drosophila melanogaster

<400> 8

Met Gly Tyr Pro Glu Val Glu Arg Arg Glu Leu Leu Pro Ala Ala Ala
1 5 10 15

Pro Arg Glu Arg Gly Ser Gln Gly Cys Gly Cys Gly Gly Ala Pro Ala
20 25 30

Arg Ala Gly Glu Gly Asn Ser Cys Leu Leu Phe Leu Gly Phe Phe Gly
35 40 45

Leu Ser Leu Ala Leu His Leu Leu Thr Leu Cys Cys Tyr Leu Glu Leu
50 55 60

Arg Ser Glu Leu Arg Arg Glu Arg Gly Ala Glu Ser Arg Leu Gly Gly
65 70 75 80

Ser Gly Thr Pro Gly Thr Ser Gly Thr Leu Ser Ser Leu Gly Gly Leu
85 90 95

Asp Pro Asp Ser Pro Ile Thr Ser His Leu Gly Gln Pro Ser Pro Lys
100 105 110

Gln Gln Pro Leu Glu Pro Gly Glu Ala Ala Leu His Ser Asp Ser Gln
 115 120 125
 Asp Gly His Gln Met Ala Leu Leu Asn Phe Phe Phe Pro Asp Glu Lys
 130 135 140
 Pro Tyr Ser Glu Glu Glu Ser Arg Arg Val Arg Arg Asn Lys Arg Ser
 145 150 155 160
 Lys Ser Asn Glu Gly Ala Asp Gly Pro Val Lys Asn Lys Lys Lys Gly
 165 170 175
 Lys Lys Ala Gly Pro Pro Gly Pro Asn Gly Pro Pro Gly Pro Pro Gly
 180 185 190
 Pro Pro Gly Pro Gln Gly Pro Pro Gly Ile Pro Gly Ile Pro Gly Ile
 195 200 205
 Pro Gly Thr Thr Val Met Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly
 210 215 220
 Pro Gln Gly Pro Pro Gly Leu Gln Gly Pro Ser Gly Ala Ala Asp Lys
 225 230 235 240
 Ala Gly Thr Arg Glu Asn Gln Pro Ala Val Val His Leu Gln Gly Gln
 245 250 255
 Gly Ser Ala Ile Gln Val Lys Asn Asp Leu Ser Gly Gly Val Leu Asn
 260 265 270
 Asp Trp Ser Arg Ile Thr Met Asn Pro Lys Val Phe Lys Leu His Pro
 275 280 285
 Arg Ser Gly Glu Leu Glu Val Leu Val Asp Gly Thr Tyr Phe Ile Tyr
 290 295 300
 Ser Gln Val Glu Val Tyr Tyr Ile Asn Phe Thr Asp Phe Ala Ser Tyr
 305 310 315 320
 Glu Val Val Val Asp Glu Lys Pro Phe Leu Gln Cys Thr Arg Ser Ile
 325 330 335
 Glu Thr Gly Lys Thr Asn Tyr Asn Thr Cys Tyr Thr Ala Gly Val Cys
 340 345 350
 Leu Leu Lys Ala Arg Gln Lys Ile Ala Val Lys Met Val His Ala Asp
 355 360 365
 Ile Ser Ile Asn Met Ser Lys His Thr Thr Phe Phe Gly Ala Ile Arg
 370 375 380
 Leu Gly Glu Ala Pro Ala Ser
 385 390

<210> 9
 <211> 391
 <212> PRT

<213> Mus musculus

<400> 9

Met Gly Tyr Pro Glu Val Glu Arg Arg Glu Pro Leu Pro Ala Ala Ala
1 5 10 15
Pro Arg Glu Arg Gly Ser Gln Gly Cys Gly Cys Arg Gly Ala Pro Ala
20 25 30
Arg Ala Gly Glu Gly Asn Ser Cys Arg Leu Phe Leu Gly Phe Phe Gly
35 40 45
Leu Ser Leu Ala Leu His Leu Leu Thr Leu Cys Cys Tyr Leu Glu Leu
50 55 60
Arg Ser Glu Leu Arg Arg Glu Arg Gly Thr Glu Ser Arg Leu Gly Gly
65 70 75 80
Pro Gly Ala Pro Gly Thr Ser Gly Thr Leu Ser Ser Pro Gly Ser Leu
85 90 95
Asp Pro Val Gly Pro Ile Thr Arg His Leu Gly Gln Pro Ser Phe Gln
100 105 110
Gln Gln Pro Leu Glu Pro Gly Glu Asp Pro Leu Pro Pro Asp Ser Gln
115 120 125
Asp Arg His Gln Met Ala Leu Leu Asn Phe Phe Phe Pro Asp Glu Lys
130 135 140
Ala Tyr Ser Glu Glu Glu Ser Arg Arg Val Arg Arg Asn Lys Arg Ser
145 150 155 160
Lys Ser Gly Glu Gly Ala Asp Gly Pro Val Lys Asn Lys Lys Gly
165 170 175
Lys Lys Ala Gly Pro Pro Gly Pro Asn Gly Pro Pro Gly Pro Pro Gly
180 185 190
Pro Pro Gly Pro Gln Gly Pro Pro Gly Ile Pro Gly Ile Pro Gly Ile
195 200 205
Pro Gly Thr Thr Val Met Gly Pro Pro Gly Pro Pro Gly Pro Pro Gly
210 215 220
Pro Gln Gly Pro Pro Gly Leu Gln Gly Pro Ser Gly Ala Ala Asp Lys
225 230 235 240
Thr Gly Thr Arg Glu Asn Gln Pro Ala Val Val His Leu Gln Gly Gln
245 250 255
Gly Ser Ala Ile Gln Val Lys Asn Asp Leu Ser Gly Gly Val Leu Asn
260 265 270
Asp Trp Ser Arg Ile Thr Met Asn Pro Lys Val Phe Lys Leu His Pro
275 280 285

Arg Ser Gly Glu Leu Glu Val Leu Val Asp Gly Thr Tyr Phe Ile Tyr
290 295 300

Ser Gln Val Glu Val Tyr Tyr Ile Asn Phe Thr Asp Phe Ala Ser Tyr
305 310 315 320

Glu Val Val Val Asp Glu Lys Pro Phe Leu Gln Cys Thr Arg Ser Ile
325 330 335

Glu Thr Gly Lys Thr Asn Tyr Asn Thr Cys Tyr Thr Ala Gly Val Cys
340 345 350

Leu Leu Lys Ala Arg Gln Lys Ile Ala Val Lys Met Val His Ala Asp
355 360 365

Ile Ser Ile Asn Met Ser Lys His Thr Thr Phe Phe Gly Ala Ile Arg
370 375 380

Leu Gly Glu Ala Pro Ala Ser
385 390

<210> 10

<211> 423

<212> DNA

<213> Drosophila melanogaster

<400> 10

tcgcaaaagc tcggtgctgc tgagcaataa aggtattaat ttatgaaatc attgttgcgc 60

aaagaaattg atcagaggaa tatgaaaata atcgaatcga gacggcacgt ctaaaaggtt 120

gatgtacaat attgtaacat tcagtgcata gcgacatcca gtgcagcaag taaattaagc 180

gaacaagatg gattccaaag tgggtgcaga tcctagttcg gcctacgaca aggaaatcgg 240

caacaatcta aacaacgatg attcctcatt tctgggcaac ataatccgcg aaatcctgta 300

cagtccaatg aacctggccc tcctggccat catctgcttc ctggtctata aaatcgttcg 360

ggatgcgacc gaagtgccat ccgtgggcgt tgcaaagcca tccgaacctg agttacccaa 420

aat 423

<210> 11

<211> 24

<212> DNA

<213> Drosophila melanogaster

<400> 11

accagaacgg atttatcgtc ttcc 24

<210> 12

<211> 18

<212> DNA

<213> Drosophila melanogaster

<400> 12

gttggtgggc accgtgtt

18

<210> 13

<211> 19

<212> DNA

<213> Drosophila melanogaster

<400> 13

gaccatccgc ccagcatatc

19

<210> 14

<211> 19

<212> DNA

<213> Drosophila melanogaster

<400> 14

actggtggcg gatgaagtg

19

<210> 15

<211> 193

<212> PRT

<213> Drosophila melanogaster

<400> 15

Met Pro Glu Glu Gly Ser Gly Cys Ser Val Arg Arg Arg Pro Tyr Gly
1 5 10 15

Cys Val Leu Arg Ala Ala Leu Val Pro Leu Val Ala Gly Leu Val Ile
20 25 30

Cys Leu Val Val Cys Ile Gln Arg Phe Ala Gln Ala Gln Gln Gln Leu
35 40 45

Pro Leu Glu Ser Leu Gly Trp Asp Val Ala Glu Leu Gln Leu Asn His
50 55 60

Thr Gly Pro Gln Gln Asp Pro Arg Leu Tyr Trp Gln Gly Gly Pro Ala
65 70 75 80

Leu Gly Arg Ser Phe Leu His Gly Pro Glu Leu Asp Lys Gly Gln Leu
85 90 95

Arg Ile His Arg Asp Gly Ile Tyr Met Val His Ile Gln Val Thr Leu
100 105 110

Ala Ile Cys Ser Ser Thr Thr Ala Ser Arg His His Pro Thr Thr Leu
115 120 125

Ala Val Gly Ile Cys Ser Pro Ala Ser Arg Ser Ile Ser Leu Leu Arg
130 135 140

Leu Ser Phe His Gln Gly Cys Thr Ile Val Ser Gln Arg Leu Thr Pro
 145 150 155 160

Leu Ala Arg Gly Asp Thr Leu Cys Thr Asn Leu Thr Gly Thr Leu Leu
 165 170 175

Pro Ser Arg Asn Thr Asp Glu Thr Phe Phe Gly Val Gln Trp Val Arg
 180 185 190

Pro

<210> 16

<211> 234

<212> PRT

<213> Drosophila melanogaster

<400> 16

Met Asp Pro Gly Leu Gln Gln Ala Leu Asn Gly Met Ala Pro Pro Gly
 1 5 10 15

Asp Thr Ala Met His Val Pro Ala Gly Ser Val Ala Ser His Leu Gly
 20 25 30

Thr Thr Ser Arg Ser Tyr Phe Tyr Leu Thr Thr Ala Thr Leu Ala Leu
 35 40 45

Cys Leu Val Phe Thr Val Ala Thr Ile Met Val Leu Val Val Gln Arg
 50 55 60

Thr Asp Ser Ile Pro Asn Ser Pro Asp Asn Val Pro Leu Lys Gly Gly
 65 70 75 80

Asn Cys Ser Glu Asp Leu Leu Cys Ile Leu Lys Arg Ala Pro Phe Lys
 85 90 95

Lys Ser Trp Ala Tyr Leu Gln Val Ala Lys His Leu Asn Lys Thr Lys
 100 105 110

Leu Ser Trp Asn Lys Asp Gly Ile Leu His Gly Val Arg Tyr Gln Asp
 115 120 125

Gly Asn Leu Val Ile Gln Phe Pro Gly Leu Tyr Phe Ile Ile Cys Gln
 130 135 140

Leu Gln Phe Leu Val Gln Cys Pro Asn Asn Ser Val Asp Leu Lys Leu
 145 150 155 160

Glu Leu Leu Ile Asn Lys His Ile Lys Lys Gln Ala Leu Val Thr Val
 165 170 175

Cys Glu Ser Gly Met Gln Thr Lys His Val Tyr Gln Asn Leu Ser Gln
 180 185 190

Phe Leu Leu Asp Tyr Leu Gln Val Asn Thr Thr Ile Ser Val Asn Val

195	200	205
Asp Thr Phe Gln Tyr Ile Asp Thr Ser Thr Phe Pro Leu Glu Asn Val		
210	215	220
Leu Ser Ile Phe Leu Tyr Ser Asn Ser Asp		
225	230	
<210> 17		
<211> 281		
<212> PRT		
<213> Drosophila melanogaster		
<400> 17		
Met Ala Met Met Glu Val Gln Gly Gly Pro Ser Leu Gly Gln Thr Cys		
1	5	10 15
Val Leu Ile Val Ile Phe Thr Val Leu Leu Gln Ser Leu Cys Val Ala		
20	25	30
Val Thr Tyr Val Tyr Phe Thr Asn Glu Leu Lys Gln Met Gln Asp Lys		
35	40	45
Tyr Ser Lys Ser Gly Ile Ala Cys Phe Leu Lys Glu Asp Asp Ser Tyr		
50	55	60
Trp Asp Pro Asn Asp Glu Glu Ser Met Asn Ser Pro Cys Trp Gln Val		
65	70	75 80
Lys Trp Gln Leu Arg Gln Leu Val Arg Lys Met Ile Leu Arg Thr Ser		
85	90	95
Glu Glu Thr Ile Ser Thr Val Gln Glu Lys Gln Gln Asn Ile Ser Pro		
100	105	110
Leu Val Arg Glu Arg Gly Pro Gln Arg Val Ala Ala His Ile Thr Gly		
115	120	125
Thr Arg Gly Arg Ser Asn Thr Leu Ser Ser Pro Asn Ser Lys Asn Glu		
130	135	140
Lys Ala Leu Gly Arg Lys Ile Asn Ser Trp Glu Ser Ser Arg Ser Gly		
145	150	155 160
His Ser Phe Leu Ser Asn Leu His Leu Arg Asn Gly Glu Leu Val Ile		
165	170	175
His Glu Lys Gly Phe Tyr Tyr Ile Tyr Ser Gln Thr Tyr Phe Arg Phe		
180	185	190
Gln Glu Glu Ile Lys Glu Asn Thr Lys Asn Asp Lys Gln Met Val Gln		
195	200	205
Tyr Ile Tyr Lys Tyr Thr Ser Tyr Pro Asp Pro Ile Leu Leu Met Lys		
210	215	220

Ser Ala Arg Asn Ser Cys Trp Ser Lys Asp Ala Glu Tyr Gly Leu Tyr
 225 230 235 240

Ser Ile Tyr Gln Gly Gly Ile Phe Glu Leu Lys Glu Asn Asp Arg Ile
 245 250 255

Phe Val Ser Val Thr Asn Glu His Leu Ile Asp Met Asp His Glu Ala
 260 265 270

Ser Phe Phe Gly Ala Phe Leu Val Gly
 275 280

<210> 18
 <211> 16
 <212> PRT
 <213> Drosophila melanogaster

<400> 18

Leu Thr Val Thr Asn Ala Gly Leu Tyr Tyr Val Tyr Ala Gln Ile Trp
 1 5 10 15

<210> 19
 <211> 17
 <212> PRT
 <213> Drosophila melanogaster

<400> 19

Leu Thr Val Thr Asn Thr Gly Leu Tyr Tyr Val Tyr Ala Gln Ile Cys
 1 5 10 15

Tyr

<210> 20
 <211> 17
 <212> PRT
 <213> Drosophila melanogaster

<400> 20

Leu Thr Val Thr Asn Thr Gly Leu Tyr Tyr Val Tyr Ala Gln Ile Cys
 1 5 10 15

Tyr

<210> 21
 <211> 36
 <212> DNA
 <213> Drosophila melanogaster

<400> 21
 cggaagagatc taacgcgtgt atcgcatctg gacaag

36

<210> 22
 <211> 30
 <212> DNA
 <213> *Drosophila melanogaster*

 <400> 22
 gcctctagaa atttacacct tgaagatgcc 30

 <210> 23
 <211> 38
 <212> DNA
 <213> *Drosophila melanogaster*

 <400> 23
 gcagcagcgg ccgcattctc gcactaacga tctggcag 38

 <210> 24
 <211> 35
 <212> DNA
 <213> *Drosophila melanogaster*

 <400> 24
 gcagcagtcg accaccttga agatgccaaa gtagc 35

 <210> 25
 <211> 38
 <212> DNA
 <213> *Drosophila melanogaster*

 <400> 25
 gcagcagcgg ccgcatgact gcagagacc tcaagccg 38

 <210> 26
 <211> 36
 <212> DNA
 <213> *Drosophila melanogaster*

 <400> 26
 gcagcagtcg actacgccat cgcgcgtttg aaagtg 36

 <210> 27
 <211> 38
 <212> DNA
 <213> *Drosophila melanogaster*

 <400> 27
 gcagcagcgg ccgcattctc gcactaacga tctggcag 38

 <210> 28
 <211> 35
 <212> DNA

<213>	Drosophila melanogaster	
<400>	28	
gcagcagtcg	accaccttga agatgccaaa gtagc	35
<210>	29	
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<212>	DNA	
<213>	Drosophila melanogaster	
<400>	29	
gcagcagcgg	ccgcatgact gccgagaccc tcaagccg	38
<210>	30	
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<212>	DNA	
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<400>	30	
gcagcagtcg	acgacgccat cgcgcgtttg aaagtg	36
<210>	31	
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<400>	31	
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<210>	32	
<211>	35	
<212>	DNA	
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<400>	32	
gcagcagtcg	accaccttga agatgccaaa gtagc	35
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<400>	33	
gcagcagcgg	ccgcatgact gccgagaccc tcaagccg	38
<210>	34	
<211>	37	
<212>	DNA	
<213>	Drosophila melanogaster	
<400>	34	

gcagcagtcg accaagacgc catcgcgctg ttgaaag

37

<210> 35
<211> 14
<212> PRT
<213> Drosophila melanogaster

<400> 35

Gln Asn Ile Gln Gly Asn His Thr Glu Leu Gln Glu Lys Ser
1 5 10

<210> 36
<211> 14
<212> PRT
<213> Drosophila melanogaster

<400> 36

Leu Arg Glu Gly Asn Asn Arg Ser Tyr Phe Gly Ile Phe Lys
1 5 10

<210> 37
<211> 12
<212> PRT
<213> Drosophila melanogaster

<400> 37

Met Thr Ala Glu Thr Leu Lys Pro Phe Ile Thr Pro
1 5 10

<210> 38
<211> 13
<212> PRT
<213> Drosophila melanogaster

<400> 38

Leu Thr Ile Trp Gln Thr Thr Arg Val Ser His Leu Asp
1 5 10

<210> 39
<211> 13
<212> PRT
<213> Drosophila melanogaster

<400> 39

Asp Lys Glu Leu Lys Ser Leu Lys Arg Val Val Asp Asn
1 5 10

<210> 40
<211> 13
<212> PRT
<213> Drosophila melanogaster

<400> 40

Ala His Phe His Leu Ser Ser Arg Arg Arg His Gln Glu
1 5 10

<210> 41

<211> 13

<212> PRT

<213> Drosophila melanogaster

<400> 41

His Phe His Leu Ser Ser Arg Arg Arg His Gln Glu Ser
1 5 10

<210> 42

<211> 20

<212> PRT

<213> Drosophila melanogaster

<400> 42

His Leu Ser Ser Arg Arg Arg His Gln Glu Ser Met Gly Tyr His Gly
1 5 10 15

Asp Met Tyr Tyr
20

<210> 43

<211> 18

<212> PRT

<213> Drosophila melanogaster

<400> 43

Leu Ser Ser Arg Arg Arg His Gln Glu Ser Met Gly Tyr His Gly Asp
1 5 10 15

Met Tyr

<210> 44

<211> 14

<212> PRT

<213> Drosophila melanogaster

<400> 44

Gln Asn Ile Gln Gly Asn His Thr Glu Leu Gln Glu Lys Ser
1 5 10

<210> 45

<211> 14

<212> PRT

<213> Drosophila melanogaster

<400> 45

Ala Gln Ile Cys Tyr Asn Asn Ser His Asp Gln Asn Gly Phe
1 5 10

<210> 46

<211> 14

<212> PRT

<213> Drosophila melanogaster

<400> 46

Leu Arg Glu Gly Asn Asn Arg Ser Tyr Phe Gly Ile Phe Lys
1 5 10

<210> 47

<211> 12

<212> PRT

<213> Drosophila melanogaster

<400> 47

Met Thr Ala Glu Thr Leu Lys Pro Phe Ile Thr Pro
1 5 10

<210> 48

<211> 13

<212> PRT

<213> Drosophila melanogaster

<400> 48

Leu Thr Ile Trp Gln Thr Thr Arg Val Ser His Leu Asp
1 5 10

<210> 49

<211> 13

<212> PRT

<213> Drosophila melanogaster

<400> 49

Asp Lys Glu Leu Lys Ser Leu Lys Arg Val Val Asp Asn
1 5 10

<210> 50

<211> 13

<212> PRT

<213> Drosophila melanogaster

<400> 50

Ser Ser Asn Glu Ala Thr Ser Lys Glu Arg Met His Ser
1 5 10

<210> 51

<211> 13

<212> PRT
<213> Drosophila melanogaster

<400> 51

Gly Glu Ser Leu Leu Ser Ala Arg Ser Glu Asp Ser Arg
1 5 10

<210> 52
<211> 13
<212> PRT
<213> Drosophila melanogaster

<400> 52

Ala His Phe His Leu Ser Ser Arg Arg Arg His Gln Gly
1 5 10

<210> 53
<211> 13
<212> PRT
<213> Drosophila melanogaster

<400> 53

His Phe His Leu Ser Ser Arg Arg Arg His Gln Gly Ser
1 5 10

<210> 54
<211> 27
<212> PRT
<213> Drosophila melanogaster

<400> 54

Thr Arg Asp Gly Val Leu Thr Val Thr Asn Thr Gly Leu Tyr Tyr Val
1 5 10 15

Tyr Ala Gln Ile Cys Tyr Asn Asn Ser His Asp
20 25

<210> 55
<211> 14
<212> PRT
<213> Drosophila melanogaster

<400> 55

Gln Asn Ile Gln Gly Asn His Thr Glu Leu Gln Glu Lys Ser
1 5 10

<210> 56
<211> 14
<212> PRT
<213> Drosophila melanogaster

<400> 56

Ala Gln Ile Cys Tyr Asn Asn Ser His Asp Gln Asn Gly Phe
1 5 10

<210> 57
<211> 14
<212> PRT
<213> Drosophila melanogaster

<400> 57

Leu Arg Glu Gly Asn Asn Arg Ser Tyr Phe Gly Ile Phe Lys
1 5 10

<210> 58
<211> 12
<212> PRT
<213> Drosophila melanogaster

<400> 58

Met Thr Ala Glu Thr Leu Lys Pro Phe Ile Thr Pro
1 5 10

<210> 59
<211> 13
<212> PRT
<213> Drosophila melanogaster

<400> 59

Leu Thr Ile Trp Gln Thr Thr Arg Val Ser His Leu Asp
1 5 10

<210> 60
<211> 13
<212> PRT
<213> Drosophila melanogaster

<400> 60

Asp Lys Glu Leu Lys Ser Leu Lys Arg Val Val Asp Asn
1 5 10

<210> 61
<211> 13
<212> PRT
<213> Drosophila melanogaster

<400> 61

Ser Ser Asn Glu Ala Thr Ser Lys Glu Ser Pro Ala Pro
1 5 10

<210> 62
<211> 13
<212> PRT

<213> Drosophila melanogaster

<400> 62

Ala His Phe His Leu Ser Ser Arg Arg Arg His Gln Gly
1 5 10

<210> 63

<211> 13

<212> PRT

<213> Drosophila melanogaster

<400> 63

His Phe His Leu Ser Ser Arg Arg Arg His Gln Gly Ser
1 5 10

<210> 64

<211> 27

<212> PRT

<213> Drosophila melanogaster

<400> 64

Thr Arg Asp Gly Val Leu Thr Val Thr Asn Thr Gly Leu Tyr Tyr Val
1 5 10 15

Tyr Ala Gln Ile Cys Tyr Asn Asn Ser His Asp
20 25

<210> 65

<211> 8

<212> PRT

<213> bacteriophage T7

<400> 65

Asp Tyr Lys Asp Asp Asp Asp Lys
1 5